

## CLAIMS:

1. A device for subfield coding a large-screen display, the device comprising means for generating a digital value for a picture element of the display and means for determining a first number and a second number of subfields of a predetermined total number of subfields from the digital value, for which determined subfields the picture element emits radiation

characterized in that the device comprises

- means for determining the first number of subfields from the digital value, the first number of subfields having a fixed duration and a different on-period in which the picture element emits radiation, and

- means for determining the second number of subfields from the digital value, the second number of subfields having a fixed duration and a fixed on-period during which the picture element emits radiation.

2. A device for subfield coding as claimed in claim 1, characterized in that the means for determining the first number are arranged to determine the first number from a sequence of a predetermined number of least significant bits of the digital value.

3. A device for subfield coding as claimed in claim 2, characterized in that the subfield coding device comprises means for generating a subfield sequence having a number of subfields which is equal to the determined number of least significant bits, and the duration of the on-period of a subfield selected from the subfield sequence is a function of two to the power of the rank of the selected subfield in the subfield sequence.

4. A device for subfield coding as claimed in claim 3, characterized in that the subfield coding device comprises means for generating an output-enable signal depending on the order of a subfield in the subfield sequence and the value of a bit in the sequence of least significant bits, which order of the bit in the sequence corresponds to the order of the subfield.

5           \* A device for subfield coding as claimed in claim 4, characterized in that the means for generating the output-enable signal comprises a look-up table and a period counter for counting the length of the on-period.

5   6.           A device for subfield coding as claimed in claim 1, characterized in that the means for determining the second number are arranged to determine the second number proportional to a value formed by the remainder of most significant bits of the digital value.

10   7.           A display device comprising a display screen having a plurality of controllable light sources arranged in a matrix, the display device comprising a device for subfield coding as claimed in claim 1.

15   8.           A method of subfield coding a large-screen display, the method comprising the steps of  
generating a digital value for a picture element of the display and  
determining a first number and a second number of subfields of a predetermined total number of subfields from the digital value, for which determined subfields the picture element emits radiation  
characterized in that the step of determining subfields comprises  
20   -           a substep of determining the first number of subfields from the digital value, the first number of subfields having a fixed duration and a different on-period in which the picture element emits radiation, and  
-           a substep of determining the second number of subfields from the digital value, the second number of subfields having a fixed duration and a fixed on-period during  
25   which the picture element emits radiation.